

## **Proposal for a Supplement to the 03 series of amendments to UN Regulation No. 79 (Steering equipment)**

The text reproduced below was prepared by the experts from the International Organization of Motor Vehicle Manufacturers (OICA) and the European Association of Automotive Suppliers (CLEPA), proposing amendments to UN Regulation No. 79. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

The proposal is identical to that briefly presented as document GRVA-07-24 at the seventh session of GRVA (September 2020).

### **I. Proposal**

*Paragraph 5.1.6.2.3.*, amend to read:

“5.1.6.2.3. An automatic avoidance manoeuvre initiated by an ESF shall not lead the vehicle to leave the road **if applicable for the specified use case according to par. 5.1.6.2.10.**

5.1.6.2.3.2. In the absence of a lane marking on one or on both side(s) of the vehicle, a single ESF intervention is permitted, provided that it does not produce a lateral offset of the vehicle greater than 0.75 m in a direction where the lane marking is absent. The lateral offset during the automatic avoidance manoeuvre shall be determined using a fixed point on the front of the vehicle at the start and at the conclusion of the ESF intervention.

**The lateral offset of 0.75 m may be exceeded by a system intervention if the vehicle speed during the whole intervention is below 20 km/h and the lateral offset rate generated by the system is limited to 2 m/s, calculated as an average for a time period of 1 s.**

*Annex 8, paragraph 3.3.4.*, amend to read:

“3.3.4. Tests for systems able to operate in the absence of lane markings. In case any system works in absence of lane markings the corresponding tests from paragraphs 3.3.1. to 3.3.3. need to be repeated on a test track without lane markings. These test requirements are fulfilled if,

(a) An ESF intervention is started; and

(b) The warnings specified in paragraph 5.1.6.2.6. of this UN Regulation are provided no later than the ESF intervention starts; and

(c) The lateral offset during the manoeuvre is 0.75 m, as specified in paragraph **5.1.6.2.3.2.**, at maximum **or if exceeded in case of an intervention below 20 km/h, the lateral offset rate does not exceed 2 m/s; and**

(d) The vehicle has not left the road due to the ESF intervention, **if applicable for the specified use case.**

### **II. Justification**

Low Vehicle Speed LVS ESF

1. Driving in narrow and/or confusing situations may be challenging and uncomfortable for the driver, and it poses a risk for accidents, causing minor

but troublesome damages or injuries. Readily available technology, with sensors and suitable functionalities, allows for an analysis and evaluation of the driving situation and if required, assistance to the driver, thus reducing damages and injuries.

2. Typical situations arise in narrow streets or car parks, where the vehicle could face difficulties such as from the following obstacles; (irregularly) parked vehicles, construction conditions including kerbstones, bollards and traffic calming measures, dustbins, moving vans, construction areas, narrow ramps, or other road users. Another special case is multi-storey car parks with a spiral-type up and down access ramp, and where the velocity may be up to 20 km/h, where-in this may occur and the assistance function is necessary for a longer time period. Limitations for the dynamic behaviour ensure, that the driver is able to control the steering task when such an assistance system is engaged.
3. This proposal seeks to permit manoeuvring assistance in the low speed driving situations described above and other situations to reduce damages and injuries. A maximum speed appropriate to these driving situations ensures that assistance in many common situations in urban environments including car parks can be provided.

Such functions are already in the market, type approved according to UN-R79.01 and should be permitted according to the new series of amendments as well.

4. Here is a [link](#) to a video well illustrating the proposed functionality.
-